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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,095	03/29/2001	Juan G. Revilla	10559-395001 / P10620-ADI	8397

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EXAMINER	
DANG, KHANH NMN	

ART UNIT	PAPER NUMBER
2111	7

DATE MAILED: 12/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/823,095	REVILLA ET AL.	
	Examiner	Art Unit	
	Khanh Dang	2111	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 October 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8,10 and 13-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8, 10, 13-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Objections

Claim 8 is objected to because of the following informalities: line 4, after "represents", the word "storing" should be added. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4-8, 17, 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Garibay, Jr. et al.

At the outset, it is noted that similar claims will be grouped together to avoid repetition in explanation.

As broadly drafted, these claims do not define any structure/step that differs from Garibay, Jr. et al. It is first noted that the the phrase, "adapted to" perform a function is

not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison, 69 USPQ 138.* In any event, With regard to claims 1, 2, 4-8, 17, and 18, Garibay, Jr. et al. discloses a processor coupled to the memory device (cache 14), wherein the processor includes an execution unit (12) and a control unit, the control unit including a prefetch unit (22/24) and exception handling logic (shown generally at 30), the control unit adapted to: fetch at least one data block; generate exception status information about the data block; store the exception status information and the data block in the prefetch unit (22/24); detect at least part of an instruction within the data block; in parallel, issue the instruction to the execution unit (12) and issue at least part of the exception status information to the exception handling logic. Also, in Garibay Jr. et al., the data/address buffers are readable as a so-called "instruction alignment unit." In addition, the decoder 26 is readable as "decoder." It is clear from Garibay, Jr. et al. that there must be a memory to store the prefetch buffers.It is also clear from Garibay, Jr. et al., that the control unit is able to fetch another data block; generate additional exception status information about the another data block; and store the additional exception status information and the another data block in the prefetch unit (22/24).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the

> subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garibay, Jr. et al.

Garibay, Jr. et al., as explained above, discloses the claimed invention including the use of a exception handling processor/logic (30). Garibay, Jr. et al. does not disclose the use of an OR gate in the handling processor/logic. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an OR gate particularly in the handling processor/logic (30) of Garibay, Jr. et al., since the Examiner takes Official Notice that the use of an OR gate in a programmable handling processor/logic is old and well-known; and the only involves routine skill in the art. If the Applicants choose to challenge the fact that OR gate is used in programmable logic, supportive document(s) will be provided upon request.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garibay, Jr. et al.

Garibay, Jr. et al., as explained above, discloses the claimed invention including the use of a buffer in a prefetch unit (22/24). However, Garibay, Jr. et al. does not particularly disclose the use of at least two buffers. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use at least two buffers, since it has been held that duplication of the essential working parts of a device involves

only routine skill in the art. *St. Regis Paper Co. vs. Bemis Co., 193 USPQ 8.* In any event, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use at least two buffers in Garibay, Jr. et al., since the Examiner takes Official Notice that the use a plurality of buffers or a single large buffer in order to speed-up/improve transaction speed is old and well-known; and the only involves routine skill in the art. If the Applicants choose to challenge the fact that the use a plurality of buffers or a single large buffer in order to speed up/improve transaction speed is old and well-known, supportive document(s) will be provided upon request.

Claim 10, 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garibay, Jr. et al.

Garibay, Jr. et al., as explained above, discloses the claimed invention including the use of a processor coupled to the memory device (cache 14), wherein the processor includes an execution unit (12) and a control unit, the control unit including a prefetch unit (22/24) and exception handling logic (shown generally at 30), the control unit adapted to: fetch at least one data block; generate exception status information about the data block; store the exception status information and the data block in the prefetch unit (22/24) including a buffer; detect at least part of an instruction within the data block; in parallel, issue the instruction to the execution unit (12) and issue at least part of the exception status information to the exception handling logic. With regard to claim 13, the data/address buffers are readable as a so-called "instruction alignment unit." With regard to claim 14, the decoder 26 is readable as "decoder." With regard to claims 15

and 16, it is clear from Garibay, Jr. et al. that there must be a memory to store the prefetch buffers. However, Garibay, Jr. et al. does not particularly disclose the use of at least two buffers. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use at least two buffers, since it has been held that duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. vs. Bemis Co., 193 USPQ 8.* In any event, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use at least two buffers in Garibay, Jr. et al., since the Examiner takes Official Notice that the use a plurality of buffers or a single large buffer in order to speed-up/improve transaction speed is old and well-known; and the only involves routine skill in the art. If the Applicants choose to challenge the fact that the use a plurality of buffers or a single large buffer in order to speed up/improve transaction speed is old and well-known, supportive document(s) will be provided upon request.

Response to Arguments

Applicant's arguments filed 10/29/2003 have been fully considered but they are not persuasive.

At the outset, Applicants are reminded that claims subject to examination will be given their broadest reasonable interpretation consistent with the specification. *In re Yamamoto*, 740 F2.d 1569, 1571, 222 USPQ 934, 936 (Fed. Cir. 1984). Applicants are also reminded that claimed subject matter not the specification, is the measure of the invention. Disclosure contained in the specification can not be read into the claims for

the purpose of avoiding the prior art. *In re Sporck*, 55 CCPA 743, 386 F.2d, 155 USPQ 687 (1986).

With this in mind, the discussion will focus on how the terms and relationships thereof in the claims are met by the references. Response to any limitations that are not in the claims or any arguments that are irrelevant and/or do not relate to any specific claimed language will not be warranted.

The 102 Garibay Rejection:

With regard to claims 1 and 7, Applicants argued that Garibay does not disclose "storing an instruction and a multiple bit exception word represent multiple different types of exceptions." Contrary to Applicants' s argument, Garibay does not disclose one exception condition. In fact, Garibay discloses a plurality of different exception conditions (see at least the abstract and claim 1). Digitally speaking, it is clearly inherent that a plurality of exception conditions can only be represented by a set of bits. Different combinations of state (polarity) of bits represent different exception conditions.

With regard to claims 8 and 10, Applicants argued that Garibay does not disclose that "the instruction can be multiple data blocks" and does not disclose storing "the whole instruction in the multiple data blocks." Contrary to Applicants' argument, instruction may be represented by "instruction bytes." As commonly known, one byte is a sequence of 8 bits (enough to represent one character of alphanumeric data) processed as a single unit of information.

The 103 Garibay Rejection:

No separate argument is provided regarding the 103 Rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Khanh Dang at telephone number 703-308-0211.

Khanh Dang
Primary Examiner